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ARTICLE III.

ON A NEW GENUS OF BOIDÆ FROM CUBA.

BY EDW. HALLOWELL, M. D.

[Read April 4, 1856.]

FAM. BOIDÆ. GEN. NOTOPHIS HALLOWELL.

Char. Nostrils opening in a single plate; head covered in its anterior half with symmetrical plates, posteriorly with scales; upper and lower lips *very slightly* pitted; scales of the back and sides carinated; of the lower rows smooth; median row of scales of back and upper part of tail larger than the others, and bicarinated; ventral scutes very narrow; those of tail in a single row; tail short.

NOTOPHIS BI-CARINATUS. NOB.

Char. Colour of a uniform red, lighter upon the cheeks and lips; Abdom. Scut. 204. Subcaud. 40: 26 rows of scales. Total length one foot, six inches, nine lines.

Description. Head small, angular, slightly truncate, depressed, presenting upon its upper and anterior half nine distinct plates exclusive of the supra-orbitar, viz., two internasals, two fronto-nasals, and two pre-frontals; one frontal (vertical,) and two occipital, or post-frontal, with three small plates intercalated between the latter. The rostral plate is more extended in the lateral than vertical direction, somewhat rounded above, excavated in front; the internasal are irregularly quadrangular, in contact in front with the vertical, inferiorly with the nasal, at their inner border with each other, posteriorly with the fronto-nasals; the pre-frontals are two in number, large, more or less quadrilateral, passing down alongside the muzzle in contact inferiorly with the second and third supralabials, posteriorly with the ante-orbitar, and the pre-frontal plates; the pre-frontals are very much smaller than the fronto-nasals, quadrilateral; the frontal (vertical) is regularly pentagonal, much larger than broad; the supra-orbitals are irregularly hexagonal, convex above, not projecting over the eyes; the post-frontals are irregular in shape, a little larger than broad, and have three small plates between them; the nasal plates are quadrilateral, larger than broad, in contact anteriorly with the vertical, posteriorly with the pre-frontals; the nostrils are small, latero-superior, each situated in the nasal plate, nearer its anterior than posterior margin; there is but one ant.-ocular plate, but there are three post-oculars; the former is in contact above and posteriorly with the supra-orbitar, and above with the posterior frontal; the three posterior oculars are of nearly equal size, the superior perhaps a little the largest; the eye rests on the fourth and fifth superior labial plates; the posterior margin of the occipital plate is about a line in advance of the posterior extremity of the gape of the mouth; there are ten superior labials; of these the third and the seventh appear to be the largest; the eye is of moderate size, circular; there are fourteen sublabials exclusive of the mental; the posterior part of the head is covered with scales; the teeth in the upper jaw, constituting the external row, are well developed, sharp-pointed, recurved, their points directed backward, the anterior longer than the posterior; the inner rows of teeth are smaller; the teeth in the lower jaw are also well developed, the anterior ones longer than the posterior; the neck is small, the body more or less cylindrical; the tail short and rounded, tapering gradually to its extremity; the scales are carinated, with the exception of the four inferior rows, which are perfectly smooth; the scales are broad, and more or less quadrangular; 26 rows may be counted at about the middle of the body; the middle row of scales along the back and tail is larger than the others (1 line and ½ in breadth) and distinctly hexagonal, presenting two carinæ in the middle of each scale; the adjacent rows are about a line in breadth, and a line and a half in length; the most inferior row is somewhat larger than either of the lateral rows. The ventral scales are remarkable for their extreme narrowness, being only about 4½ lines in breadth. 204 ventral scuta; 40 subcaudal. The latter single; the præanal scale is also single; the lateral and posterior borders of the anus present a semicircular row of small scales; no spurs evident; colour rufous throughout, without spots.

Dimensions. Length of head 8½ lines; greatest breadth 5½; length of body 16 inches 7 lines (Fr.;) of tail 2½ inches; greatest circumference 2 inches 4 lines.

Habitat. Cuba. Specimen in Acad. N. S. presented by Dr. Gavin Watson.

Gen. Remarks. The Boidæ form the second tribe of the Aproterodonts of Duméril and Bibron, in their arrangement constituting the second sub-family of Pythonians, which belong to the second section of the Ophidians, the Azemiophides, or non-venomous circuiform Serpents. The family of Pythonians are divided into two sub-families, viz., the Holodonts and the one above mentioned, the first being provided with intermaxillary teeth, the second being without them. The first sub-family is divided into four genera, the second into ten, the first or that of the Holodonts, including the Pythonidæ, having a prehensile tail, the second or the Aproterodonts, the Erycidæ, and the Boidæ, the latter comprising ten genera, having a prehensile tail, the former (Eryx) without. The genera are based upon the presence or absence of fossettes in one or both lips, the disposition of the plates and scales upon the head, their presence or absence, the position of the nostrils, the smoothness or carination of the scales of the body, &c.

The animal above described belongs to the second of the sub-families indicated, or the Aproterodonts, being without intermaxillary teeth. None of the ten genera into which this family is divided presents characters identical with those of Notophis. Platygaster is distinguished by the carination of its scales from "Boa, Pelophilus, Eunectes, Xiphosoma, Epicrates, and Chilobothrus," in all of which the scales are smooth, "besides in presenting a cephalic covering, composed exclusively of symmetrical plates, and not in part of these and in part of scales, or only the latter, as the Leptoboas, and the Enygres," (See Dum. and Bib., Vol. vi. p. 496.) The tail is long and robust. Epicrates has the upper part of the head covered with plates in its anterior and with scales in its posterior half, but the nostrils open between three plates, and the scales of the body are smooth. Epicrates and Xiphosoma are the only genera of their tribe, according to Duméril and Bibron, which have fossettes to the lips. There are two species of Epicrates, E. Cenchris, ten feet long, and E. angulifer longer, the latter from Cuba. The first of these species has a row of scales along the middle of the back, larger than the others. Leptoboa has the head covered with plates in front, and with scales posteriorly, but the interspace between the eyes is occupied with scales, and the tail is long. (127 subcaudal scuta.)

Tropidophis, a Cuban genus, has the head covered with symmetrical plates, the nostril opening between two plates, the scales uni-carinate, the central row not larger than the others; the number of the abdominal and subcaudal plates is nearly the same—147 to 200 abdominal,—27 to 39 subcaudal.

From the genera above mentioned Notophis differs in its small size, having more the general appearance of an Eryx, in the shape of the head, in the mode of carination of the scales, its short tail, the narrowness of the ventral scutes and the position of the nostril, which opens near the middle of a single plate, resembling in this respect Platygaster, but in that genus, the ventral plates are very broad, the tail long, the head covered entirely with plates, and is without fossettes to the lips. Its habitat also is very different. We have carefully examined the works of Duméril and Bibron, and Mr. Gray, the latest authorities in Herpetology, and do not find any animal the description of which corresponds to the above very remarkable serpent. Nor is it mentioned in the splendid work of De la Sagra on the Natural History of Cuba. It has been for several years in the collection of the Academy of Natural Sciences of Philada. Its proper place would appear to be along side of Tropidophis and Platygaster. It is a very harmless-looking animal. Nothing is known of its habits, which probably resemble those of Tortrix and Eryx.

Geographical Distribution. The family of Pythonians, comprising the genera Python, Boa, Eryx, Xiphosoma, Liasis, and others, is represented, say Duméril and Bibron, in the four quarters of the globe, as well as in Australia and the Indian Archipelago. The greater number of species, however, belonging to six genera, viz., Tropidophis (2,) Boa (4,) Eunectes or Anaconda (1,) Xiphosoma (2,) Epicrates (2,) and Chilobothrus (1,) are natives of the American continent, or of the Indian Islands (Tropidophis and Epicrates Cuba.) (Chilobothrus, Jamaica and Porto Rico.) Boa, (divinoloqua, St. Lucia) (imperator Mexico,) (eques Peru.) (Constrictor, N. & E. parts of South America.) (Guiana, Brazil, Rio de la Plata, Buenos Ayres.) A species of Xiphosoma and Pelophilus are found in Madagascar. Eryx according to Duméril and Bibron is found in Europe, Asia, and Africa. Morelia, Nardoa, and Platygaster belong exclusively to Australasia. Python to Africa, Asia and the Asiatic islands. (5 sp.) Liasis to the Asiatic islands and Australia. Platygaster belongs to New Holland, Engyrus to New Guinea and the Moluccas, Leptoboa, to islands dependent upon Africa; Tropidophis, Boa, Eunectes, Epicrates, and Chilobothrus are American. Pelophilus is peculiar to Africa. (Madagascar.)

The total number of Pythonians, according to the celebrated authors above quoted is 33, of which one is common to Europe, Asia, and Africa (Eryx jaculus*) 7 to Africa, 2 to Asia, 2 to Asia and the Asiatic islands, 8 to Oceanica, 12 to America, and one of unknown origin. Above one-third of the species, therefore, exist in America. (See Dum. and Bib., vol. ii. p. 378 and 380.)

Duméril and Bibron remark, as a fact worthy of note, that none of the twelve American Pythonians belong to the sub-family of Holodonts, or those with intermaxillary

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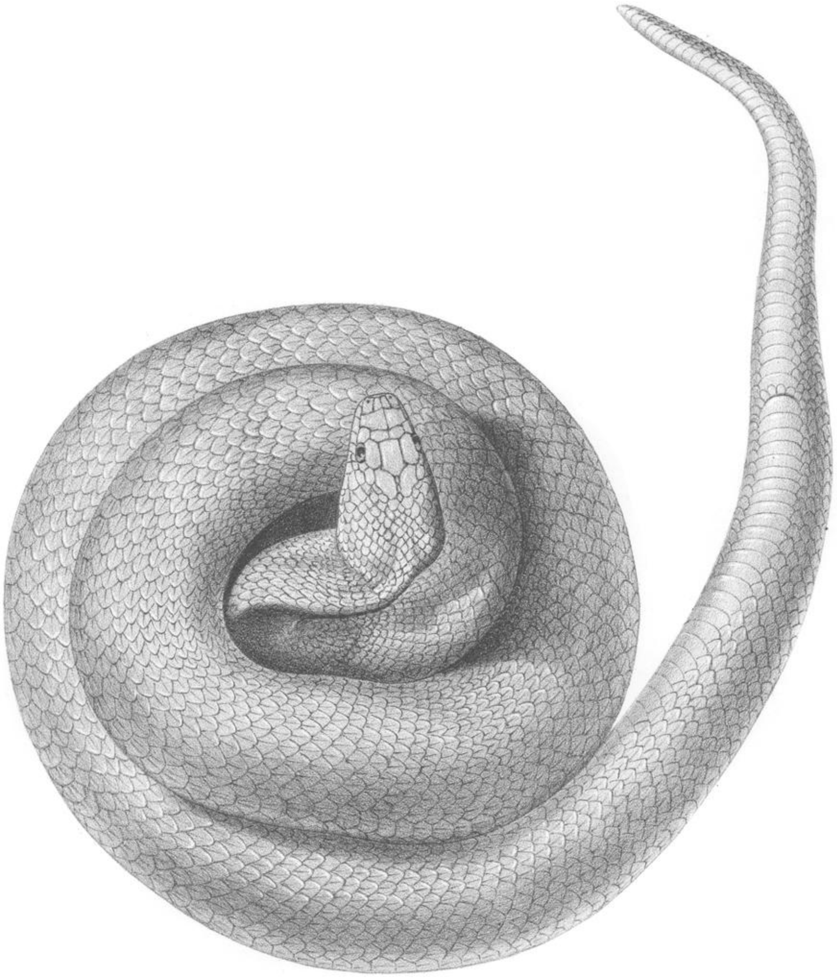
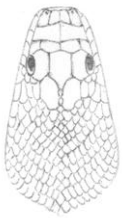
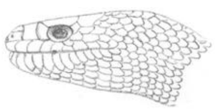
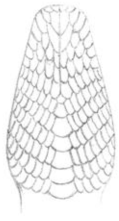
* Prof. Schlegel adds Turcomania. None of the species enumerated by Prof. Schlegel in his monograph of the genus Eryx is said by him to inhabit Europe. He divides the Erycidæ into two groups, 1st, those which have the head covered in great part with scales, the nostrils opening between three plates, and the tail short, including, E. jaculus, thebaicus, conicus, and Johnii (maculatus nob.) and 2nd, those which have the head covered with plates, except the occiput, the cheeks, and the throat, the nostrils opening in the middle of a *single* plate, tail short or of medium length, including E. Reinhardtii, and E. multicarinatus, or Platygaster multicarinatus, Dum. and Bib. Tortrix Pseudo-Eryx. Schlegel. Abbildungen, pl. 34. According to Dum. and Bib., the nostrils in Eryx invariably open between three plates. The scales in Platygaster are tricarinate.

Description d'une nouvelle espece du genre Eryx, Eryx Reinhardtii par H. Schlegel, memoir accompagnée d'une planche en noir, 4to.









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NOTOPHIS BI CARINATUS.

or incisive teeth, but to the sub-family of Aproterodonts, species of which however exist in Europe, Asia, Africa and Oceanica. The only American genus not exclusively such is Xiphosoma, a species of which (X. Madagascariense) is found in Madagascar. There are according to Duméril and Bibron but 11 species of Holodonts. These are distributed in Australia; in S. & W. Africa (Python Natalensis, sebæ and regius, bivittatus Kuhl,) in Asia and Oceanica (India and Sunda Islands, Python Molurus and reticulatus,) (Morelia argus Tasmania and New Holland,) in which also is found Liasis olivaceus, (Timor, L. Macklotii,) Moluccas and New Ireland (L. amythestinus and Nardoa Schlegelii.) All the species of Pythonians appear to be inhabitants of warm climates, and many of them attain to a very large size, the Anaconda or Eunectes murinus, a water serpent, being from 20 to 30 feet in length, the largest of the serpents known. Others are of much smaller size, the Boa constrictor being only from 9 to 12 feet in length, and Xiphosoma caninum, one of the most beautiful of the serpents, but six. Platygaster is not more than two feet and a quarter in length.

Python Sebæ, or bivittatus Kuhl (Liberiensis nob.) is said by Schlegel to be the largest serpent of the ancient world, being above 20 feet in length. The other Pythons are from 6 to 14 feet long. The Python Sebæ, according to Bosman, is worshipped by the negroes of Guinea, as their chief divinity, and the choice of a new king cannot be made unless sanctioned by the presence of one of these reptiles. According to Schlegel, it was this serpent which the soldiers of Regulus encountered near the Bragada, the size of which however is greatly exaggerated by Pliny. (Essai sur la Physiognomie des Serpens, Tome 11, p. 410.)